We claim:

1. A polypeptide selected from the group consisting of SEQ ID NOs: 1 through 152, and functionally equivalent fragments, derivatives, and variants thereof.

2. A polynucleotide encoding a polypeptide sequence of claim 1, or a degenerate variant thereof.

3. A vector comprising a polynucleotide of claim 2.

4. A host cell comprising a vector of claim 3.

5. A method for producing a polypeptide comprising:
   a) culturing the host cell of claim 4 under conditions suitable for the expression of said polypeptide; and
   b) recovering the polypeptide from the host cell culture.

6. A purified antibody which binds specifically to the polypeptide of claim 1.

7. The polypeptide of claim 1, wherein said polypeptide is selected from the group consisting of SEQ ID NOs: 1, 2, 3, 4, and 5.

8. The polypeptide of claim 1, wherein said polypeptide is selected from the group consisting of SEQ ID NOs: 115, 116, 117, 118, and 119.

9. A polynucleotide selected from the group consisting of SEQ ID NOs: 154 through 264.

10. A pharmaceutical composition comprising a therapeutically effective amount of a polypeptide of claim 1, or functionally equivalent fragments, derivatives, and variants thereof, in combination with a pharmaceutically acceptable carrier.

11. The pharmaceutical composition of claim 10, wherein said composition comprises about 2% to about 30% DMSO and optionally, a solvent selected from the consisting of propylene glycol, dimethyl formamide, propylene carbonate, polyethylene glycol, and triglycerides.

12. The pharmaceutical composition of claim 10, wherein said polypeptide is selected from the group consisting of SEQ ID NOs: 1, 2, 3, 4, 5, 115, 116, 117, 118, and 119.

13. A pharmaceutical composition comprising a therapeutically effective amount of a polypeptide of claim 1, or functionally equivalent fragments, derivatives, and variants thereof, in combination with a pharmaceutically acceptable carrier and one or more pharmaceutical agents.

14. The pharmaceutical composition of claim 13, wherein said pharmaceutical agent is selected

from the group consisting of PPAR agonists, sulfonylurea drugs, non-sulfonylurea secretagogues, α-glucosidase inhibitors, insulin sensitizers, insulin secretagogues, hepatic glucose output lowering compounds, insulin, anti-obesity agents, HMG CoA reductase inhibitors, nicotinic acid, bile acid sequestrants, fibric acid derivatives, and anti-hypertensive agents.

15. A composition comprising an effective amount of a polypeptide of claim 1, or functionally equivalent fragments, derivatives, and variants thereof, in combination with an inert carrier.

16. A method of treating diabetes comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

17. The method of claim 16, wherein said diabetes is selected from the group consisting of type 1 diabetes, type 2 diabetes, maturity-onset diabetes of the young, latent autoimmune diabetes adult, and gestational diabetes.

18. A method of treating Syndrome X comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

19. A method of treating diabetes-related disorders comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

20. The method of claim 19, wherein said diabetes-related disorder is selected from the group consisting of hyperglycemia, hyperinsulinemia, impaired glucose tolerance, impaired fasting glucose, dyslipidemia, hypertriglyceridemia, and insulin resistance.

21. A method of treating diabetes comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1 in combination with one or more pharmaceutical agents.

22. The method of claim 21, wherein said pharmaceutical agent is selected from the group consisting of PPAR agonists, sulfonylurea drugs, non-sulfonylurea secretagogues, α-glucosidase inhibitors, insulin sensitizers, insulin secretagogues, hepatic glucose output lowering compounds, insulin, and anti-obesity agents.

23. The method of claim 22, wherein said diabetes is selected from the group consisting of type 1 diabetes, type 2 diabetes, maturity-onset diabetes of the young, latent autoimmune diabetes adult, and gestational diabetes.

24. A method of treating Syndrome X comprising the step of administering to a subject in need

thereof a therapeutically effective amount of a polypeptide of claim 1 in combination with one or more pharmaceutical agents.

25. The method of claim 24, wherein said pharmaceutical agent is selected from the group consisting of PPAR agonists, sulfonylurea drugs, non-sulfonylurea secretagogues, α-glucosidase inhibitors, insulin sensitizers, insulin secretagogues, hepatic glucose output lowering compounds, insulin, and anti-obesity agents.

26. A method of treating diabetes-related disorders comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1 in combination with one or more pharmaceutical agents.

27. The method of claim 26, wherein said diabetes-related disorder is selected from the group consisting of hyperglycemia, hyperinsulinemia, impaired glucose tolerance, impaired fasting glucose, dyslipidemia, hypertriglyceridemia, and insulin resistance.

28. The method of claim 27, wherein said pharmaceutical agent is selected from the group consisting of PPAR agonists, sulfonylurea drugs, non-sulfonylurea secretagogues, α-glucosidase inhibitors, insulin sensitizers, insulin secretagogues, hepatic glucose output lowering compounds, insulin, and anti-obesity agents.

29. A method of treating diabetes, Syndrome X, or diabetes-related disorders comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1 in combination with one or more agents selected from the group consisting of HMG CoA reductase inhibitors, nicotinic acid, bile acid sequestrants, fibric acid derivatives, and anti-hypertensive agents.

30. The method of claim 29, wherein said diabetes-related disorder is selected from the group consisting of hyperglycemia, hyperinsulinemia, impaired glucose tolerance, impaired fasting glucose, dyslipidemia, hypertriglyceridemia, and insulin resistance.

31. The method of any one of claims 21 to 30, wherein the polypeptide of claim 1 and one or more pharmaceutical agents are administered as a single pharmaceutical dosage formulation.

32. A method of treating or preventing secondary causes of diabetes comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

33. The method of claim 32, wherein said secondary cause is selected from the group consisting of glucocorticoid excess, growth hormone excess, pheochromocytoma, and drug-induced diabetes.

34. A method of treating or preventing secondary causes of diabetes comprising the step of administering a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1 in combination with one or more pharmaceutical agents.

35. The method of claim 34, wherein said pharmaceutical agent is selected from the group consisting of PPAR agonists, sulfonylurea drugs, non-sulfonylurea secretagogues, α-glucosidase inhibitors, insulin sensitizers, insulin secretagogues, hepatic glucose output lowering compounds, insulin, and anti-obesity agents.

36. A method of treating respiratory disease comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

37. A method of treating obesity comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

38. A method of regulating appetite comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

39. A method of treating cardiovascular disease comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

40. A method of treating disorders of lipid and carbohydrate metabolism comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

41. A method of treating sleep disorders comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

42. A method of treating male reproductive disorders comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

43. A method of treating growth disorders or disorders of energy homeostasis comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

44. A method of treating immune diseases comprising the step of administering to a subject in

need thereof a therapeutically effective amount of a polypeptide of claim 1.

45. A method of treating autoimmune diseases comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

46. A method of treating acute and chronic inflammatory diseases comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

47. A method of treating septic shock comprising the step of administering to a subject in need thereof a therapeutically effective amount of a polypeptide of claim 1.

48. A method of stimulating insulin release in a glucose-dependent manner in a subject in need thereof by administering to said subject a polypeptide of claim 1.

49. A gene therapy composition comprising a polynucleotide of claim 2 in combination with a therapeutically effective gene therapy vector.

50. Polypeptides according to claim 1 for the treatment and/or prophylaxis of diabetes and diabetes-related disorders.

51. Medicament containing at least one polypeptide according to claim 1 in combination with at least one pharmaceutically acceptable, pharmaceutically safe carrier or excipient.

52. Use of polypeptides according to claim 1 for manufacturing a medicament for the treatment and/or prophylaxis of diabetes and diabetes-related disorders.

53. Medicament according to claim 51 for the treatment and/or prophylaxis of diabetes.